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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/699,792	10/30/2000	David L. Smith	10005131-1	7073

7590 12/17/2002

HEWLETT-PACKARD COMPANY
Intellectual Property Administration
P.O. Box 272400
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EXAMINER

ABDULSELAM, ABBAS I

ART UNIT PAPER NUMBER

2674

DATE MAILED: 12/17/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

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Office Action Summary	Application No. 09/699,792	Applicant(s) SMITH ET AL.	
	Examiner Abbas I Abdulsalam	Art Unit 2674	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 26 September 2002.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-4,9-14,16,18-20 and 24-34 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-4,9-14,16,18-20 and 24-34 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ | 6) <input type="checkbox"/> Other: _____ |

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DETAILED ACTION

Response to Arguments

1. Applicant's arguments filed on 09/26/02 have been fully considered but they are not persuasive.

Applicant in light of amended claims argues that the cited references, Yong (USPN 6088021) and Kawabe (USPN 6166722) do not disclose a tracking device disposed within a cable receiver so as to generate signals based on the movement of the pointing device. Applicant also argues that the cited references do not disclose the use of a rotatable circuit having one transducer, and an optical tracking device. However, as shown in the art rejection below, Yong teaches in reference to Fig 3(A-B), electronic encoders sensing the rotation of the ball (310) and generating a signal indicative of the computer's display. Col. 5, lines 47-50. Yong's Fig 1A also shows that the display (104) is part of a computer system (100) in which a central processing system (122) is an integral part (Fig 1B). Referring Fig 5, Yong further discloses the use of a shaft (518) coupled with sensors which generate a signal causing a cursor displayed on the display. See col. 7, lines 52-65. Yong teaches that the mechanism in which spool (322) and the disk (350) are rotated against the force of the spring (342) and shows the movement of the tip of the flexible pawl (354) out of notch in the disk (350). See col. 7, lines 6-22. Furthermore, Yong mentions the use of the computer system (100) in terms of input/output system (136) that can include infrared

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and electroacoustic transducers. Col. 4, 25-40. It would have been obvious to one of ordinary skill in the art the cited encoders are functionally equivalent to the desired tracking device.

Claim Rejections 35 U.S.C. 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-4, 9-14, 16, 18-20 and 24-34 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kawabe et al. (USPN 6166722) in view of Yong (6088021).

Regarding claims 1, 24-27 and 33-34, kawabe teaches a personal computer (10), a display (14) a pointing device (40) electrically connected to a cable (5), and a cable winding device . See Fig 3, col. 6, lines 50-54 and Fig 8. However, Kawabe does not teach a mechanism of cable and cable receiver such that the pointing device produces various modes corresponding to various length of the cable. On the other hand, Yong teaches an input device (202) including a reel assembly (214) which allows the cord (204) to be extended and retracted between a fully extended length and fully retracted length. See col. 5, lines 17-21 and Fig 2.

It would have been obvious to one skilled in the art at the time the invention was made to modify kawabe's pointing device to include Yong's reel assembly and cord. One would have been motivated in view of the suggestion in Yong that the reel assembly and the cord can be used for

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the desired functions of changing the length of the cord and producing different modes. The use of reel assembly and cord helps an input device produce retractable cable as taught by Yong.

In addition, Yong teaches in reference to Fig 3(A-B), electronic encoders sensing the rotation of the ball (310) and generating a signal indicative of the computer's display. Col. 5, lines 47-50. Yong's Fig 1A also shows that the display (104) is part of a computer system (100) in which a central processing system (122) is an integral part (Fig 1B). Referring Fig 5, Yong further discloses the use of a shaft (518) coupled with sensors which generate a signal causing a cursor displayed on the display. See col. 7, 52-65. Yong teaches that the mechanism in which spool (322) and the disk (350) are rotated against the force of the spring (342) and shows the movement of the tip of the flexible pawl (354) out of notch in the disk (350). See col. 7, lines 6-22. Furthermore, Yong mentions the use of the computer system (100) in terms of input/output system (136) that can include infrared and electroacoustic transducers. Col. 4, 25-40

Regarding claim 2, it has been discussed above.

Regarding claims 3-4, Yong teaches a keyboard (412) and mouse and (414) for entering information and commands into the computer (41). See Fig 4.

Regarding claims 10, 16 and 28, Yong teaches electric encoders sensing the rotation of the ball and generating a signal indicative of the ball's rotation to control movement of the cursor displayed on the display. See col. 1, lines 28-31.

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Regarding claims 12, and 19, Yong teaches a cord (204) with fully extended length shown as phantom lines and fully retracted length shown as solid lines. See col. 5, lines 17-21 and Fig 2.

Regarding claims 9, 13 and 18, Yong teaches an auxiliary memory (126) which includes optical device and different types of disks in conjunction with input/output system (136). See Fig 1B and col. 3. Lines 46-51.

Regarding claims 11 and 14, kawabe teaches the use of cable means for a pointing device. See col. 1, lines 13-25.

Regarding claim 20, see Yong's Fig 3A (350).

Regarding claims 29-30, Kawabe teaches a pointing device (40) whose upper surface is provided with a sensor pad (40a). See Fig 8.

Regarding claims 31-32, Yong teaches an input device including a wheel assembly (212).

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Conclusion

3. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

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4. Any inquiry concerning this communication or earlier communication from the examiner should be directed to **Abbas Abduselam** whose telephone number is **(703) 305-8591**. The examiner can normally be reached on Monday through Friday (9:00-5:30).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, **Richard Hjerpe**, can be reached at **(703) 305-4709**.

Any response to this action should be mailed to:

Commissioner of patents and Trademarks

Washington, D.C. 20231

or faxed to:

(703) 872-9314

Hand delivered responses should be brought to Crystal Park II, Crystal Drive, Arlington, VA, Sixth Floor (Receptionist).

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Technology center 2600 customer Service office whose telephone number is (703) 306-0377



RICHARD HJERPE
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600

Abbas Abduselam

Examiner

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